

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

**1. (Currently Amended)** A method comprising:

obtaining reference data that characterizes a media stream, said reference data including a mathematical transform of at least a portion of an image included in said media stream;

obtaining altered data that characterizes said media stream after said media stream has traversed a channel that includes a network, said altered data including a transform of the at least a portion of the image included in said media stream after said media stream has traversed said channel; and

determining a quality of service of said channel on the basis of a comparison of said reference data and said altered data.

**2. (Original)** The method of claim 1, wherein

said reference data characterizes a feature of said media stream; and

said altered data characterizes a feature of said media stream after said media stream has traversed said channel.

**3. (Original)** The method of claim 1, wherein obtaining at least one of said

reference and said altered data comprises applying a Sarnoff JND algorithm or an ANSI

T1.801.03 algorithm.

4. **(Currently Amended)** The method of claim 2, wherein determining a quality of service of said channel comprises comparing said reference data and said altered data ~~for said feature of said media stream.~~

5. **(Original)** The method of claim 1, further comprising:  
obtaining network statistics associated with transmission on said channel; and  
correlating said network statistics with said altered data.

6. **(Original)** The method of claim 5, further comprising selecting said network statistics from the group consisting of jitter, packet loss, and packet latency.

7. **(Previously Presented)** The method of claim 1, further comprising selecting said channel to include:

an encoder for creating an encoded representation of said media stream;  
a decoder for recovering said media stream from said encoded representation; and  
a computer network between said encoder and said decoder for transmitting said encoded representation between said encoder and said decoder.

8. (Original) The method of claim 1, wherein obtaining said reference data comprises:

passing said media stream through an encoder to generate an encoded signal;  
passing said encoded signal through a decoder to generate a decoded media stream; and  
passing said decoded media stream through a feature extractor to extract said reference data.

9. (Currently Amended) A system comprising:

a first feature extractor for generating reference data characterizing a media stream, said reference data including a mathematical transform of at least a portion of an image included in said media stream;

a second feature extractor for generating altered data characterizing said media stream after said media stream has traversed a channel that includes a network, said altered data including a transform of the at least a portion of the image included in said media stream after said media stream has traversed said channel; and

an analyzer for comparing said reference data and said altered data to generate a transmission metric indicative of a quality of service.

10. (Original) The system of claim 9, further comprising a correlator in communication with said analyzer, said correlator being configured to correlate network statistics associated with said channel with said transmission metric.

11. **(Original)** The system of claim 10, further comprising a network monitor in communication with said correlator, said network monitor being configured to collect said network statistics.

12. **(Original)** The system of claim 10, wherein said correlator is configured to correlate statistics selected from the group consisting of: jitter, packet loss, and packet latency.

13. **(Original)** The system of claim 9, wherein said first and second feature extractors are configured to extract media features using an algorithm selected from the group consisting of: the Sarnoff JND algorithm and the ANSI T1.801.03 algorithm

14. **(Currently Amended)** A computer-readable medium having software encoded thereon, said software comprising instructions for:

obtaining reference data that characterizes a media stream, said reference data including a mathematical transform of at least a portion of an image included in said media stream;

obtaining altered data that characterizes said media stream after said media stream has traversed a channel that includes a network, said altered data including a transform of the at least a portion of the image included in said media stream after said media stream has traversed said channel; and

determining a quality of service of said channel on the basis of a comparison of said

reference data and said altered data.

**15. (Original)** The computer-readable medium of claim 14, wherein  
said instructions for obtaining reference data include instructions for generating reference  
data characterizing a feature of said media stream; and  
said instructions for obtaining altered data comprise instructions for generating altered  
data that characterizes a feature of said media stream after said media stream has traversed said  
channel.

**16. (Original)** The computer-readable medium of claim 14, wherein said instructions  
for obtaining at least one of said reference and said altered data comprise instructions for  
applying a Sarnoff JND algorithm or an ANSI T1.801.03 algorithm.

**17. (Currently Amended)** The computer-readable medium of claim 15, wherein said  
instructions for determining a quality of service of said channel comprise instructions for  
comparing said reference data and said altered data ~~for said feature of said media stream.~~

**18. (Original)** The computer-readable medium of claim 14, wherein said software  
further comprises instructions for:  
obtaining network statistics associated with transmission on said channel; and  
correlating said network statistics with said altered data.

**19. (Original)** The computer-readable medium of claim 18, wherein said software further comprises instructions for selecting said network statistics from the group consisting of jitter, packet loss, and packet latency.

**20. (Previously Presented)** The computer-readable medium of claim 14, wherein said software further comprises instructions for selecting said channel to include:

- an encoder for creating an encoded representation of said media stream;
- a decoder for recovering said media stream from said encoded representation; and
- a computer network between said encoder and said decoder for transmitting said encoded representation between said encoder and said decoder.

**21. (Original)** The computer-readable medium of claim 14, wherein said instructions for obtaining said reference data comprise instructions for:

- passing said media stream through an encoder to generate an encoded signal;
- passing said encoded signal through a decoder to generate a decoded media stream; and
- passing said decoded media stream through a feature extractor to extract said reference data.